RAW SEQUENCE LISTING

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Application Serial Number: 10|723,365B

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RAW SEQUENCE LISTING   DATE: 01/30/2005
PATENT APPLICATION: US/10/723,365B   TIME: 12:03:55

Input Set : A:\Seq2073u.app
Output Set: N:\CRF4\01302005\J723365B.raw

```
 3 <110> APPLICANT: VAN DEN BOOM, DIRK
 4       BOCKER, SEBASTIAN
 6 <120> TITLE OF INVENTION: FRAGMENTATION-BASED METHODS AND SYSTEMS FOR SEQUENCE
 7       VARIATION DETECTION AND DISCOVERY
 9 <130> FILE REFERENCE: SEQ-2073-UT
11 <140> CURRENT APPLICATION NUMBER: 10/723,365B
12 <141> CURRENT FILING DATE: 2003-11-26
14 <150> PRIOR APPLICATION NUMBER: 60/429,895
15 <151> PRIOR FILING DATE: 2002-11-27
17 <160> NUMBER OF SEQ ID NOS: 85
19 <170> SOFTWARE: PatentIn Ver. 3.2
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 7
23 <212> TYPE: PRT
24 <213> ORGANISM: Artificial Sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
28       peptide
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31 Pro Phe His Leu Leu Val Tyr
32    1               5
35 <210> SEQ ID NO: 2
36 <211> LENGTH: 5
37 <212> TYPE: PRT
38 <213> ORGANISM: Artificial Sequence
40 <220> FEATURE:
41 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
42       peptide
44 <220> FEATURE:
45 <221> NAME/KEY: MOD_RES
46 <222> LOCATION: (5)
47 <223> OTHER INFORMATION: Any amino acid except pro or arg
49 <400> SEQUENCE: 2
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54 <210> SEQ ID NO: 3
55 <211> LENGTH: 5
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
61       peptide
63 <220> FEATURE:
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 64 <221> NAME/KEY: MOD_RES
 65 <222> LOCATION: (5)
 66 <223> OTHER INFORMATION: Any amino acid except pro or arg
 68 <400> SEQUENCE: 3
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 73 <210> SEQ ID NO: 4
 74 <211> LENGTH: 5
 75 <212> TYPE: PRT
 76 <213> ORGANISM: Artificial Sequence
 78 <220> FEATURE:
 79 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 80       peptide
 82 <220> FEATURE:
 83 <221> NAME/KEY: MOD_RES
 84 <222> LOCATION: (5)
 85 <223> OTHER INFORMATION: Any amino acid except pro or arg
 87 <400> SEQUENCE: 4
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W--> 88 Ala Glu Gly Arg Xaa
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 89    1                 5
 92 <210> SEQ ID NO: 5
 93 <211> LENGTH: 5
 94 <212> TYPE: PRT
 95 <213> ORGANISM: Artificial Sequence
 97 <220> FEATURE:
 98 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 99       peptide
101 <220> FEATURE:
102 <221> NAME/KEY: MOD_RES
103 <222> LOCATION: (2)
104 <223> OTHER INFORMATION: Variable amino acid
106 <220> FEATURE:
107 <221> NAME/KEY: MOD_RES
108 <222> LOCATION: (5)
109 <223> OTHER INFORMATION: Variable amino acid
111 <400> SEQUENCE: 5
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W--> 112 Pro Xaa Gly Pro Xaa
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113    1                 5
116 <210> SEQ ID NO: 6
117 <211> LENGTH: 49
118 <212> TYPE: DNA
119 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
123       primer
125 <400> SEQUENCE: 6
126 cagtaatacg actcactata gggagaaggc tccccagcaa gacggactt          49
129 <210> SEQ ID NO: 7
130 <211> LENGTH: 28
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131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
136       primer
138 <400> SEQUENCE: 7
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142 <210> SEQ ID NO: 8
143 <211> LENGTH: 340
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
149       amplicon sequence
151 <400> SEQUENCE: 8
152 gggagaaggc tccccagcaa gacggacttc ttcaaaaaca tcatgaactt catagacatt 60
153 gtggccatca ttccttattt catcacgctg ggcaccgaga tagctgagca ggaaggaaac 120
154 cagaagggcg agcaggccac ctccctggcc atcctcaggg tcatccgctt ggtaagggtt 180
155 tttagaatct tcaagctctc ccgccactct aagggcctcc agatcctggg ccagaccctc 240
156 aaagctagta tgagagagct agggctgctc atcttttttcc tcttcatcgg ggtcatcctg 300
157 ttttctagtg cagtgtactt tgccgaggcg ctctcttcct                       340
160 <210> SEQ ID NO: 9
161 <211> LENGTH: 23
162 <212> TYPE: DNA
163 <213> ORGANISM: Artificial Sequence
165 <220> FEATURE:
166 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
167       primer
169 <400> SEQUENCE: 9
170 cccagtcacg acgttgtaaa acg                                         23
173 <210> SEQ ID NO: 10
174 <211> LENGTH: 23
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
180       primer
182 <400> SEQUENCE: 10
183 agcggataac aatttcacac agg                                         23
186 <210> SEQ ID NO: 11
187 <211> LENGTH: 117
188 <212> TYPE: DNA
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
193       amplicon sequence
195 <400> SEQUENCE: 11
196 cccagtcacg acgttgtaaa acgtccaggg aggactcacc atgggcattt gattgcagag 60
197 cagctccgag tccatccaga gcttcctgca gtcacctgtg tgaaattgtt atccgct    117
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RAW SEQUENCE LISTING   DATE: 01/30/2005
PATENT APPLICATION: **US/10/723,365B**   TIME: 12:03:55

Input Set : **A:\Seq2073u.app**
Output Set: **N:\CRF4\01302005\J723365B.raw**

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200 <210> SEQ ID NO: 12
201 <211> LENGTH: 21
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
207       nucleotide sequence
209 <220> FEATURE:
210 <221> NAME/KEY: modified_base
211 <222> LOCATION: (1)..(3)
212 <223> OTHER INFORMATION: a, c, g, t, unknown, or other
214 <220> FEATURE:
215 <221> NAME/KEY: modified_base
216 <222> LOCATION: (8)..(10)
217 <223> OTHER INFORMATION: a, c, g, t, unknown, or other
219 <220> FEATURE:
220 <221> NAME/KEY: modified_base
221 <222> LOCATION: (12)..(14)
222 <223> OTHER INFORMATION: a, c, g, t, unknown, or other
224 <220> FEATURE:
225 <221> NAME/KEY: modified_base
226 <222> LOCATION: (19)..(21)
227 <223> OTHER INFORMATION: a, c, g, t, unknown, or other
229 <400> SEQUENCE: 12
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W--> 230 nnnactgnnn mnnntgacnn n   **21**
```
233 <210> SEQ ID NO: 13
234 <211> LENGTH: 583
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic amplicon
240       sequence
242 <400> SEQUENCE: 13
243 cttcagtgct cacaccgacc ctatgagtgg ggcggtcaaa ctgtccccat tttacacaca 60
244 gggaaactta gtgaatggca aggctgggtt tgagcccagc tctattgccc ccaaagataa 120
245 ggctccattc cctgctccat ttcccaggca tagggacttg tagggggctg gaaccccagg 180
246 atcaactctg ggctcagagg gccccagcaa taagtgactg ttgattactc ctgatcccaa 240
247 agctgacttc aggcaagctc cttggaggtc gcagcccctt cttgctatgc ccagtggcaa 300
248 tgatgttcat aatcccactc ctcagtgcag ggttccacta agaacccatg atctcctacc 360
249 tcaaatggac ctcatgcttt ctgagtaagc ctccctcagc tttctggtca cctcactccc 420
250 cccacccact gcaatgactt cttcaggcct tccctgccat cctcaaatct ccagctgccc 480
251 cctcctgtct accttccact tccctctcca cacacaacct gcttaccaga gagctgagca 540
252 gagccaccaa cagaacttcc cccccacgtc gctgctccca gtc 583
255 <210> SEQ ID NO: 14
256 <211> LENGTH: 483
257 <212> TYPE: DNA
258 <213> ORGANISM: Mycobacterium abscessus
260 <400> SEQUENCE: 14
261 acgggtgagt aacacgtggg tgatctgccc tgcactctgg gataagcctg ggaaactggg 60
```

```
262 tctaataccg gataggacca cacacttcat ggtgagtggt gcaaagcttt tgcggtgtgg 120
263 gatgagcccg cggcctatca gcttgttggt ggggtaatgg cccaccaagg cgacgacggg 180
264 tagccggcct gagagggtga ccggccacac tgggactgag atacggccca gactcctacg 240
265 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
266 agggatgacg gccttcgggt tgtaaacctc tttcagtagg gacgaagcga aagtgacggt 360
267 acctacagaa gaaggaccgg ccaactacgt gccagcagcc gcggtaatac gtagggtccg 420
268 agcgttgtcc ggaattactg ggcgtaaaga gctcgtaggt ggtttgtcgc gttgttcgtg 480
269 aaa                                                             483
272 <210> SEQ ID NO: 15
273 <211> LENGTH: 495
274 <212> TYPE: DNA
275 <213> ORGANISM: Mycobacterium avium
277 <400> SEQUENCE: 15
278 acgggtgagt aacacgtggg caatctgccc tgcacttcgg gataagcctg ggaaactggg 60
279 tctaataccg gataggacct caagacgcat gtcttctggt ggaaagcttt tgcggtgtgg 120
280 gatgggcccg cggcctatca gcttgttggt ggggtgacgg cctaccaagg cgacgacggg 180
281 tagccggcct gagagggtgt ccggccacac tgggactgag atacggccca gactcctacg 240
282 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
283 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaaggtc cgggttttct 360
284 cggattgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420
285 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480
286 gcgttgttcg tgaaa                                                495
289 <210> SEQ ID NO: 16
290 <211> LENGTH: 495
291 <212> TYPE: DNA
292 <213> ORGANISM: Mycobacterium celatum
294 <400> SEQUENCE: 16
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296 tctaataccg gataggacca tgggatgcat gtcttgtggt ggaaagcttt tgcggtgtgg 120
297 gatgggcccg cggcctatca gcttgttggt ggggtgatgg cctaccaagg cgacgacggg 180
298 tagccggcct gagagggtgt ccggccacac tgggactgag atacggccca gactcctacg 240
299 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
300 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaagctg ccggttttcc 360
301 ggtggtgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420
302 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480
303 gcgttgttcg tgaaa                                                495
306 <210> SEQ ID NO: 17
307 <211> LENGTH: 483
308 <212> TYPE: DNA
309 <213> ORGANISM: Mycobacterium fortuitum
311 <400> SEQUENCE: 17
312 acgggtgagt aacacgtggg tgatctgccc tgcactttgg gataagcctg ggaaactggg 60
313 tctaataccg aatatgacca cgcgcttcat ggtgtgtggt ggaaagcttt tgcggtgtgg 120
314 gatgggcccg cggcctatca gcttgttggt ggggtaatgg cctaccaagg cgacgacggg 180
315 tagccggcct gagagggtga ccggccacac tgggactgag atacggccca gactcctacg 240
316 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
317 agggatgacg gccttcgggt tgtaaacctc tttcaatagg gacgaagcgc aagtgacggt 360
318 acctatagaa gaaggaccgg ccaactacgt gccagcagcc gcggtaatac gtagggtccg 420
319 agcgttgtcc ggaattactg ggcgtaaaga gctcgtaggt ggtttgtcgc gttgttcgtg 480
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/30/2005
PATENT APPLICATION: US/10/723,365B   TIME: 12:03:56

Input Set : **A:\Seq2073u.app**
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 5
Seq#:3; Xaa Pos. 5
Seq#:4; Xaa Pos. 5
Seq#:5; Xaa Pos. 2,5
Seq#:12; N Pos. 1,2,3,8,9,10,12,13,14,19,20,21
Seq#:32; N Pos. 821

VERIFICATION SUMMARY   DATE: 01/30/2005
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Input Set : **A:\Seq2073u.app**
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```
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:780
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